



# LOBEPRO

## ROTARY PUMPS

### Application Report

#### Wastewater Treatment Plant converts from Moyno to LobePro

The Sanitary Authority, a 40 MGD Wastewater Treatment Plant in Pennsylvania, contacted our local distributor to discuss replacing some Moyno progressing cavity pumps that were costing the Authority quite a bit of money in repairs.

Dave Brenneman, one of LobePro's Regional Sales Managers, met with the plant maintenance superintendent. The plant owns three 10 HP Moyno 1H11561CDQ that are used to feed a centrifuge for dewatering their sludge. The Moyno Pumps are designed for 200 GPM at 6 to 10 PSIG. The sludge ranged from 2 to 2.5% solids and has high grit content.

The plant operates two of the pumps to feed the centrifuge with one on standby. The issues with the Moyno pumps included the accumulation of hair and stringy material on the gear joint which required monthly removal, and rebuilding three to four times annually. The rebuilds range from just the rotor and stator at a cost of \$6,000 to a complete rebuild including the gear joint drive at a cost of \$10,000. Annual maintenance for each pump runs between \$24,000 and \$32,000.

"I love this LobePro pump. It takes three guys three days to rebuild a Moyno. It took three hours to rebuild the LobePro and I did it myself. I can't wait until we replace the other Moynos with LobePro."

Lead Mechanic

Dave was able to show the plant maintenance superintendent and his maintenance crew the advantages of our LobePro Rotary Pump. LobePro offers a package that is **half the size** of the 101 inch Moyno with an equivalent performance. Parts to rebuild the LobePro are a fraction of the Moyno parts, and repair time is significantly less. The superintendent and his crew saw the value of LobePro and agreed to try our model SL-133 on a rent to buy option. The SL-133 was chosen to operate slowly in order to minimize wear and maximize time between rebuilds.

#### Cost & Size Comparison:

On May 14, 2009 their LobePro SL-133 was put into service and was initially set up to run at 70% capacity pumping 217 GPM. To see how the LobePro would hold up, the speed was bumped up to where the pump was operating at 70% capacity and pumping 240 GPM, which was 20% higher than the Moyno pumps were operating. This allowed them to slow the one Moyno still operating to maintain the same flow to the centrifuge.

The cover was pulled each month to inspect the LobePro for wear. After four months there were some signs of slight wear but no drop in performance. They would have ordinarily had to rebuild their Moynos by then. Because the LobePro was carrying most of the plant load and they were able to alternate the remaining Moyno pumps, no



**Above:** 10 HP LobePro SL-133 was rebuilt after 15 months. Annual Maintenance cost: \$3200\* (*\$4000/ rebuild after 15 months*)

rebuild had been necessary. The LobePro had already paid for itself in maintenance savings.

The Lead mechanic said "I love this LobePro pump. It takes three guys three days to rebuild a Moyno. It took three hours to rebuild the LobePro and I did it myself. I can't wait until we replace the other Moynos with LobePro".

In October 2009 trouble hit the plant. A waste hauler dumped some highly abrasive material into the system. The LobePro and the Moynos fell victim to the material. The plant maintenance superintendent said "The bad news is the LobePro dropped off to about 30% of its designed flow. If there is any good news, the Moynos are even worse". We shipped them new lobes, wear plates and housing segments. The seals were **not** affected. LobePro guarantees shipment of wear parts within two business days or they are free. A vacuum truck was called in to clean out the system and the LobePro pump was repaired.

Moyno: Normally rebuilt after 4 months

LobePro: Inspected at 4 months. Showed some signs of wear, but no drop in performance.

The system was back up and the LobePro back on line in just a few days. Cost of the repairs was under \$4,000. The pump has now been back on line for 10 months and is performing perfectly. Flow and pressure are continuing to hold with no drop off. The superintendent said "We couldn't be happier with LobePro. We have requested budget approval to replace a second Moyno with a LobePro and will eventually replace them all".

Their LobePro has now been permanently installed and the first Moyno removed. The pump ran continuously for 15 months before the first rebuild at a cost less than \$4,000 and are now getting 4-5 times the service life from their new LobePro compared to the Moynos.